

08-18-00

08/16/00
Jc849 U.S. PTO

CUSTOMER NO. 005179



005179

PATENT TRADEMARK OFFICE

PATENT

A
Jc531 U.S. PTO
09/641031
08/16/00

Preliminary classification:
Proposed Class:
Subclass:

NOTE: All applicants are requested to include a preliminary classification on newly filed patent applications. The preliminary classification, preferable class and subclass designations, should be identified in the upper right-hand corner of the letter of transmittal accompanying the application papers, for example >Proposed Class 2, subclass 129, M.P.E.P. § 601, 7th ed.

Box: Patent Application
Commissioner for Patents
Washington, D.C. 20231

Practitioner Docket No.
30874-UT

NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of
Inventor(s):

Arvind A. Raichur and Becky D. Raichur

WARNING:

37 CFR 1.41(a) (1) points out:

"(a) A patent is applied for in the name or names of the actual inventor or inventors.

"(1) The inventorship of a nonprovisional application is that inventorship set forth in the oath or declaration as prescribed by § 1.63, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration as prescribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship is that inventorship set forth in the application papers filed pursuant to § 1.53(b) unless a petition under this paragraph accompanied by the fee set forth in § 1.17(l) is filed supplying or changing the name or names of the inventor or inventors."

For (title):

DYNAMIC INDEX AND SEARCH ENGINE SERVER

CERTIFICATION UNDER 37 CFR 1.10*
(Express Mail label number is **mandatory**.)
(Express Mail certification is optional.)

I hereby certify that this New Application Transmittal and the documents referred to as enclosed therein are being deposited with the United States Postal Service on this date, **August 16, 2000**, in an envelope as "Express Mail Post Office to Addressee" Mailing Label No. **EL548784495US** addressed to the: **Box: PATENT APPLICATIONS**, Commissioner for Patents, Washington, D.C. 20231.

Diane S. Nelson, Paralegal

(Signature of person mailing paper)

09641031 081600

NOTE: Certificate of mailing (first class) or facsimile transmission procedures of 37 CFR 1.8 cannot be used to obtain a date of mailing or transmission for this correspondence.

NOTE: Each paper or fee referred to as enclosed herein **must** have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 CFR 1.10(b).

"Since the filing of correspondence under § 1.10 without the Express Mail Mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will **not** be granted on petition," Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439 at 56,442.

1. Type of Application

This new application is for a(n) (check one applicable item below):

- ☒ Original (Nonprovisional)
☐ Design
☐ Plant

WARNING: Do not use this transmittal for a completion in the U.S. of an International Application under 35 U.S.C. 371(c)(4) unless the international Application is being filed as a divisional, continuation or continuation-in-part application.

WARNING: Do not use this transmittal for the filing of a provisional application.

NOTE: If one of the following 3 items apply then complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION IS CLAIMED and a NOTIFICATION IN PARENT APPLICATION OF THE FILING OF THIS CONTINUATION APPLICATION

- ☐ Divisional
☐ Continuation
☐ Continuation-in-part (C-I-P)

2. Benefit of Prior U.S. Application(s) (35 USC 119(e), 120 or 121)

Note: A nonprovisional application may claim an invention disclosed in one or more prior filed copending nonprovisional applications or copending international applications designating the United States of America. In order for a nonprovisional application to claim the benefit of a prior filed copending nonprovisional application or copending international application designating the United States of America, each prior application must name as an inventor at least one inventor named in the later filed nonprovisional application and disclose the named inventor's invention claimed in at least one claim of the later filed nonprovisional application in the manner provided by the first paragraph of 35 U.S.C. 112. Each prior application must also be:

- (i) An international application entitled to a filing date in accordance with PCT Article 11 and designating the United States of America; or
 - (ii) Complete as set forth in § 1.51(b); or
 - (iii) Entitled to a filing date as set forth in § 1.53(b) or § 1.53(d) and include the basic filing fee set forth in § 1.16; or
 - (iv) entitled to a filing date as set forth in § 1.53(b) and have paid therein the processing and retention fee set forth in § 1.21(f) within the same period set forth in § 1.53(f).
- 37 C.F.R. § 1.78(a)(1).

NOTE: If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S., or benefit of a prior provisional application is claimed, then check the following item and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

WARNING: If an application claims the benefit of the filing date of an earlier filed application under 35 USC 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 USC 120, 121 or 365(c), (35 USC 154(a)(2) does not take into account, for the determination of the patent term, any application to which priority is claimed under 35 USC 119, 365(a) or 365(b).) For a C-I-P application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20, 195, at 20,205

WARNING: When the last day of pendency of a provisional application falls on a Saturday, Sunday, or Federal holiday within the District of Columbia, any nonprovisional application claiming benefit of the provisional application **must** be filed prior to the Saturday, Sunday, or Federal holiday within the District of Columbia. See 37 C.F.R. § 1.78(a)(3)

☒ The new application being transmitted claims the benefit of prior U.S. application(s) and enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

3. Papers Enclosed

A. Required For Filing Date Under 37 CFR 1.53(b) (Regular) or 37 CFR 1.153 (Design) Application

13 Pages of specification

5 Pages of claims

8 Sheets of Drawing

WARNING: DO NOT submit original drawings. A high quality copy of the drawings should be supplied when filing a patent application. The drawings that are submitted to the Office must be on strong, white, smooth, and non-shiny paper and meet the standards according to § 1.84. If corrections to the drawings are necessary, they should be made to the original drawing and a high-quality copy of the corrected original drawing then submitted to the Office. **Only one copy is required or desired.** For comments on proposed new 37 CFR 1.84. Notice of March 9, 1988 (1990 O.G. 57-62).

NOTE: "Identifying indicia, if provided, should include the application number or title of the invention, inventor's name, docket number, and the name and phone number of a person to call if the Office is unable to match the drawings to the proper application. This information should be placed on the back of each sheet of drawing a minimum distance of 1.5 cm. (5/8") down from the top of the page." 37 CFR 1.84(c).

(complete the following, if applicable)

 The enclosed drawing(s) are photograph(s), and there is also attached a "PETITION TO ACCEPT PHOTOGRAPH(S) AS DRAWINGS(S)". 37 CFR 1.84(b).

 formal

☒ informal

B. Other Papers Enclosed

7 Pages of declaration and power

1 Pages of Abstract

 Other

4. Additional papers enclosed

 Amendment to claims

 Cancel in this application claims before calculating the filing fee. (at least one original independent claim must be retained for filing purposes.)

 Add the claims shown on the attached amendment. (claims added have been numbered consecutively following the highest numbered original claim.)

 Preliminary Amendment

 Information Disclosure Statement (37 CFR 1.98)

 Form PTO-1449 (PTO/SB/08A and 08/B)

 Citations

 Declaration of Biological Deposit

 Submission of "Sequence Listing," computer readable copy and/or amendment pertaining thereto for biotechnology invention containing nucleotide and/or amino acid sequence.

 Authorization of Attorney(s) to Accept and Follow Instructions from Representative

 Special Comments

☒ Other ☒ Associate Power of Attorney

 Petition to Make Special

5. Declaration or oath (including power of attorney)

NOTE: A newly executed declaration is not required in a continuation or divisional application provided that the prior nonprovisional application contained a declaration as required, the application being filed is by all or fewer than all the inventors named in the prior application, there is no new matter in the application being filed, and a copy of the executed declaration filed in the prior application (showing the signature or an indication thereon that it was signed) is submitted. The copy must be accompanied by a statement requesting deletion of the names of person(s) who are not inventors of the application being filed. If the declaration in the prior application was filed under § 1.47, then a copy of that declaration must be filed accompanied by a copy of the decision granting § 1.47 status or, if a nonsigning person under § 1.47 has subsequently joined in a prior application, then a copy of the subsequently executed declaration must be filed. See 37 C.F.R. § 163(d)(1)-(3).

Note: A declaration filed to complete an application must be executed, identify the specification to which it is directed, identify each inventor by full name including family name and at least one given name, without abbreviation together with any other given name or initial, and the residence, post office address and country or citizenship of each inventor, and state whether the inventor is a sole or joint inventor. 37 C.F.R. § 1.63(a)(1)-(4).

Note: "The inventorship of a nonprovisional application is that inventorship set forth in the oath or declaration as prescribed by § 1.62, except as provided in § 1.53(d)(4) and § 1.63(d). If an oath or declaration as prescribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship is that inventorship set forth in the application papers filed pursuant to § 1.53(b), unless a petition under this paragraph accompanied by the fee set forth in § 1.17(i) is filed supplying or changing the name or names of the inventor or inventors." 37 C.F.R. § 1.41(a)(1).

☒ Enclosed **UNSIGNED**

executed by (check **all** applicable boxes)

☒ inventor(s).

☐ legal representative of inventor(s) 37 CFR 1.42 or 1.43

☐ joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached

☐ This is the petition required by 37 CFR 1.47 and the statement required by 37 CFR 1.47 is also attached. See item 13 below for fee.

☐ Not enclosed

WARNING: Where the filing is a completion in the U.S. of an International Application but where a declaration is not available or where the completion of the U.S. application contains subject matter in addition to the International Application the application may be treated as a continuation or continuation-in-part, as the case may be, utilizing ADDED PAGE FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION CLAIMED.

☐ Application is made by a person authorized under 37 CFR 1.41(c) on behalf of all the above named inventor(s).

(The declaration or oath, along with the surcharge required by 37 CFR 1.16(e) can be filed subsequently.)

☐ Showing that the filing is authorized. (Not required unless called into question. 37 CFR 1.41(d).

6. Inventorship Statement

NOTE: If the named inventors are each not the inventors of all the claims an explanation, including the ownership of the various claims at the time the last claimed invention was made, should be submitted.

The inventorship for all the claims in this application are:

☒ The same or

☐ Are not the same. An explanation, including the ownership of the various claims at the time the last claimed invention was made,

☐ is submitted ☐ will be submitted.

7. Language

NOTE: An application including a signed oath or declaration may be filed in a language other than English. A verified English translation of the non-English language application and the processing fee of \$130.00 required by 37 CFR 1.17(k) is required to be filed with the application or within such time as may be set by the Office. 37 CFR 1.52(d).

NOTE: A non-English oath or declaration in the form provided or approved by the PTO need not be translated. 37 CFR 1.69(b).

☒ English

☐ non-English

☐ the attached translation includes a statement that the translation is accurate. 37 CFR 1.52(d).

8. Assignment

☐ An assignment of the invention to _____.

☐ is attached. A separate _____ "COVER SHEET FOR ASSIGNMENT DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" or _____ FORM PTO 1595 is also attached.

☐ will follow.

NOTE: "If an assignment is submitted with a new application, send two separate letters -- one for the application and one for the assignment." Notice of May 4, 1990 (1114 O.G. 77-78).

WARNING: A newly executed "CERTIFICATE UNDER 37 CFR 3.73(b)" must be filed when a continuation-in-part application is filed by an assignee. Notice of April 30, 1993, 1150 O.G. 62-64.

9. Certified Copy

Certified copy(ies) of application(s)

(country)	(appln.no.)	(filed)
(country)	(appln.no.)	(filed)
(country)	(appln.no.)	(filed)

from which priority is claimed.

☐ is (are) attached.

☐ will follow.

NOTE: The foreign application forming the basis for the claim for priority **must** be referred to in the **oath** or **declaration**. 37 CFR 1.55(a) and 1.63.

NOTE: This item is for any foreign priority for which the application being filed directly relates. If any parent U.S. application or International Application from which this application claims benefit under 35 U.S.C. 120 is itself entitled to priority from a prior foreign application then complete item 18 on the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

10. Fee Calculation (37 CFR 1.16)

A. ☒ Regular application

CLAIMS AS FILED					
Number Filed	Number Extra	Rate	Basic Fee 37 CFR 1.16(a) \$690.00		
Total Claims 37 CFR 1.16(c)	24 - 20 = 4	X	\$18.00	72.00	
Independent Claims 37 CFR 1.16(b)	3 - 3 = --	X	\$78.00	--	
Multiple dependent claim(s), if any 37 CFR 1.16(d)		X	\$260.	0.00	

☐ Amendment canceling extra claims enclosed.

- ☐ Amendment deleting multiple-dependencies enclosed.
☐ Fee for extra claims is not being paid at this time.

NOTE: If the fees for extra claims are not paid on filing they must be paid or the claims canceled by amendment prior to the expiration of the time period set for response by the Patent and Trademark Office in any notice of fee deficiency. 37 CFR 1.16(d).

Filing Fee Calculation \$ 762.00

- B. ☐ **Design Application**
(\$310.00 -- 37 CFR 1.16(f)) \$ **310.00**
C. ☐ **Plant Application**
(\$480.00 -- 37 CFR 1.16(g)) \$ **480.00**

Filing Fee Calculation \$ 762.00

11. Small Entity Statement(s)

☐ Statement(s) that this is a filing by a small entity under 37 CFR 1.9 and 1.27 is (are) attached

WARNING: "Status as a small entity must be specifically established in each application or patent in which the status is available and desired. Status as a small entity in one application or patent does not affect any other application or patent, including applications or patents which are directly or indirectly dependent upon the application or patent in which the status has been established. The refiling of an application under § 1.53 as a continuation, division, or continuation-in-part (including a continued prosecution application under § 1.53(d), or the filing of a reissue application requires a new determination as to continued entitlement to small entity status for the continuing or reissue application. A nonprovisional application claiming benefit under 35 USC 119(e), 120, 121 or 365(c) of a prior application or a reissue application may rely on a statement filed in the prior application or in the patent if the nonprovisional application or the reissue application includes a reference to a statement in the prior application or in the patent or includes a copy of the statement in the prior application or in the patent and status as a small entity is still proper and desired. The payment of the small entity basic statutory filing fee will be treated as such a reference for purposes of this section" 37 CFR § 1.28(a).

"Small entity status must not be established with the person or persons signing the...statement can unequivocally make the required self-certification." M.P.E.P. § 509.03, 6th ed., rev. 2, July 1996 (emphasis added).

(complete the following, if applicable)

X Status as a small entity was claimed in prior application U.S. Serial No. 60/149,322 filed on August 16, 1999 from which benefit is being claimed for this application under:

35 USC X 119(e)
120
121
365(c),

and which status as a small entity is still proper and desired.

X A copy of the Statement in the prior application is included.

Filing Fee Calculation (50% of A, B, or C above) \$ 381.00

NOTE: Any excess of the full fee paid will be refunded if a statement and a refund request are filed within two months of the date of timely payment of a full fee. 37 CFR 1.28(a). The two-month period is not extendable under § 1.136. 37 CFR 1.28(a)

12. Request for International-Type Search (37 CFR 1.104(d)) (complete if applicable)

- ☐ Please prepare an international-type search report for this application at the time when national examination on the merits takes place.

13. Fee Payment Being Made At This Time

☐ Not Enclosed

☐ No filing fee is to be paid at this time. *(This and the surcharge required by 37 CFR 1.16(e) can be paid subsequently.)*

☒ Enclosed

☒ basic filing fee \$ 381.00

☐ recording assignment (\$40.00; 37 CFR 1.21(h)) \$ _____

[see attached COVER SHEET FOR ASSIGNMENT
ACCOMPANYING NEW APPLICATION]

☐ petition fee for filing by other than all the inventors
or person on behalf of the inventor where inventor
refused to sign or cannot be reached (\$130.00; 37
CFR 1.47 and 1.17(i)) \$ _____

☐ for processing an application with a specification in
a non-English language (\$130.00; 37 CFR 1.52(d)
and 1.17(k)) \$ _____

☐ processing and retention fee
(\$130.00; 37 CFR 1.52(d) and 1.21(l)) \$ _____

☐ fee for international-type search report \$40.00; 37
CFR 1.21(e)) \$ _____

NOTE: 37 CFR 1.21(l) establishes a fee for processing and retaining any application which is abandoned for failing to complete the application pursuant to 37 CFR 1.53(f) and this, as well as the changes to 37 CFR 1.53 and 1.78 (a)(1), indicate that in order to obtain the benefit of a prior U.S. application, either the basic filing fee must be paid or the processing and retention fee of § 1.21(l) must be paid within 1 year from notification under § 53(f).

Total fees enclosed

\$ 381.00

14. Method of Payment of Fees

☒ Check(s) in the amount of \$ 381.00

☐ Charge Account No. 13-4213 in the amount of \$ _____. A duplicate of this transmittal is attached.

NOTE: Fees should be itemized in such a manner that it is clear for which purpose the fees are paid. 37 CFR 1.22(b).

15. Authorization to Charge Additional Fees

WARNING: If no fees are to be paid on filing the following items should **not** be completed.

WARNING: Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges, if extra claim charges are authorized.

X The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Account No.13-4213:

X 37 CFR 1.16(a), (f) or (g) (filing fees)

X 37 CFR 1.16(b), (c) and (d) (presentation of extra claims)

NOTE: Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims canceled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency (37 CFR 1.16(d)), it might be best not to authorize the PTO to charge additional claim fees, except possibly when dealing with amendments after final action.

X 37 CFR 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)

X 37 CFR 1.17(a)(1)-(5) (application processing fees)

NOTE: "...A written request may be submitted in an application that is an authorization to treat any concurrent or future reply, requiring a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. An authorization to charge all required fees, fees under § 1.17, or all required extension of time fees will be treated as a constructive petition for an extension of time in any concurrent or future reply requiring a petition for an extension of time under this paragraph for its timely submission. Submission of the fee set forth in § 1.17(a) will also be treated as a construction petition for an extension of time in any concurrent reply requiring a petition for an extension of time under this paragraph for its timely submission." 37 C.F.R. § 1.136(a)(3).

 37 CFR 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 CFR 1.311(b)).

NOTE: Where an authorization to charge the issue fee to a deposit account has been filed before the mailing of a Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time of mailing the notice of allowance. 37 CFR 1.311(b).

NOTE: 37 CFR 1.28(b) requires "Notification of any change in loss of entitlement to small entity status must be filed in the application . . . prior to paying, or at the time of paying . . . issue fee." From the wording of 37 CFR 1.28(b): (a) notification of change of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is required if the change is to another small entity.

16. Instructions As To Overpayment

Note: "...amounts of twenty-five dollars or less will not be returned unless specifically requested within a reasonable time, nor will the payor be notified of such amounts; amounts over twenty-five dollars may be returned by check or, if requested, by credit to a deposit account." 37 C.F.R. § 1.26(a).

X credit Account No. 13-4213

 refund

Reg. No. 35,964

Tel. No. (505) 998-1500

Customer No. 005179



Jeffrey D. Myers,
PEACOCK, MYERS & ADAMS, P.C.
P. O. Box 26927
Albuquerque, New Mexico 87125-6927
Direct line: (505) 998-1502

X **Incorporation by reference of added pages**

Check the following item if the application in this transmittal claims the benefit of prior U.S. application(s) (including an international application entering the U.S. stage as a continuation, divisional, provisional or C-I-P application) and complete and attach the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED

 X Plus Added Pages for New Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed
Number of pages added five

 X Plus Added Pages For Papers Referred To In Item 4 Above
Number of pages added one

 Plus added pages deleting names of inventor(s) named in prior application(s) who is/are no longer inventor(s) of the subject matter claimed in this application
Number of pages added

 Plus "Assignment Cover Letter Accompanying New Application"
Number of pages added

 Statement Where No Further Pages Added

(If no further pages form a part of this Transmittal then end this Transmittal with this page and check the following item)

 This transmittal ends with this page.

ADDED PAGES FOR APPLICATION TRANSMITTAL WHERE BENEFIT OF
PRIOR U.S. APPLICATION(S) CLAIMED

NOTE: See 37 CFR 1.78(a).

17. Relate Back

WARNING: If an application claims the benefit of the filing date of an earlier filed application under 35 USC 120, 121 or (365(c)), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 USC 120, 121 or 365(c), (35 USC 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 USC 119, 365(a) or (365(b)).) For a C-I-P application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205.

(complete the following, if applicable)

X Amend the specification by inserting, before the first line, the following sentence:**A. 35 USC 119(e)**

NOTE "Any nonprovisional application claiming the benefit of one or more prior filed copending provisional applications must contain or be amended to contain in the first sentence of the specification following the title a reference to each such prior provisional application, identifying it as a provisional application, and including the provisional application number (consisting of series code and serial number)." 37 CFR § 1.78(a)(4).

X "This application claims the benefit of U.S. Provisional Application(s) No(s):
APPLICATION(S) FILING DATE(S)

Serial No. 60/149,322August 16, 1999

"

B. 35 USC 120, 121 and 365(c)

NOTE: "Except for a continued prosecution application filed under § 1.53(d) any nonprovisional application claiming the benefit of one or more prior filed copending nonprovisionals or international applications designating the United States of America must contain or be amended to contain in the first sentence of the specification following the title a reference to such each prior application identifying it by application number (consisting of the series code and serial number) or the international application number and international filing date and indicating the relationship of the applications." Cross-references to other related applications may be made when appropriate (See § 1.14(b)), " 37 CFR § 1.78(a)(2).

 This application is a continuation; continuation-in-part; divisional
of copending application(s)

 serial number filed on ."

 International Application filed on and which designated the U.S."

NOTE: The proper reference to a prior filed PCT application which entered the U.S. national phase is the U.S. serial number and the filing date of the PCT application which designated the U.S.

NOTE: (1) Where the application being transmitted adds subject matter to the International Application then the filing can be as a continuation-in-part or (2) it is desired to do so for other reasons, then the filing can be as a continuation.

NOTE: The deadline for entering the national phase in the U.S. for an international application was clarified in the Notice of April 28, 1987 (1079 O.G. 32 to 46) as follows:

"The Patent and Trademark Office considers the International application to be pending until the 22nd month from the priority date if the United States has been designated and no Demand for International Preliminary Examination has been filed prior to the expiration of the 19th month from the priority date and until the 32nd month from the priority date if a Demand for International Preliminary Examination which elected the United States of America has been filed prior to the expiration of the 19th month from the priority date, provided that a copy of the international application has been communicated to the Patent and Trademark Office within the 20 and 30 month period respectively. If a copy of the international application has not been communicated to the Patent and Trademark Office within the 20 and 30 month period respectively, the international application becomes abandoned as to the United States 20 or 30 months from the priority date

respectively. These periods have been placed in the rules as a paragraph (h) of § 1.494 and paragraph (l) of § 1.495. A continuing application under 35 U.S.C. 365(c) and 120 may be filed anytime during the pendency of the international application."

— "The nonprovisional application designated above, namely application _____
_____, filed _____, claims the benefit of U.S. Provisional Applications(s)
No(s):

APPLICATION NO(S):

FILING DATE(S):

[Where more than one reference is made, please combine all references into one sentence]

18. Relate Back -- 35 U.S.C. 119 Priority Claim for Prior Application

The prior U.S. application(s), including any prior International Application designating the U.S. identified above in item 17B, in turn itself claim(s) foreign priority(ies) as follows:

country	appln. no.	filed on
---------	------------	----------

The certified copy(ies) has (have)

___ been filed on ___ in prior application __, which was filed on ___
___ is (are) attached.

WARNING: The certified copy of the priority application that may have been communicated to the PTO by the International Bureau may **not** be relied on without any need to file a certified copy of the priority application in the continuing application. This is so because the certified copy of the priority application communicated by the International Bureau is placed in a folder and is not assigned a U.S. serial number unless the national stage is entered. Such folders are disposed of if the national stage is not entered. Therefore such certified copies may not be available if needed later in the prosecution of a continuing application. An alternative would be to physically remove the priority documents from the folders and transfer them to the continuing application. The resources required to request transfer, retrieve the folders, make suitable record notations, transfer the certified copies, enter and make a record of such copies in the Continuing Application are substantial. Accordingly, the priority documents in folders of international applications which have not entered the national stage may not be relied on. Notice of April 28, 1987 (1079 O.G. 32 to 46)

19. Maintenance of Copendency of Prior Application

NOTE: The PTO finds it useful if a copy of the petition filed in the prior application extending the term for response is filed with the papers constituting the filing of the continuation application. Notice of November 5, 1985 (1060 O.G. 27).

- A. ☐ Extension of time in prior application
(This item **must** be completed and the papers filed in the prior application if the period set in the prior application has run)
☐ A petition, fee and response extends the term in the pending prior application until _____.
☐ A copy of the petition filed in prior application is attached.
- B. ☐ Conditional Petition for Extension of Time in Prior Application
(complete this item if previous item not applicable)
☐ A conditional petition for extension of time is being filed in the pending prior application.
☐ A copy of the conditional petition filed in the prior application is attached.

20. Further Inventorship Statement Where Benefit of Prior Application(s) Claimed

(complete applicable item (a), (b) and/or (c) below)

- (a) ☐ This application discloses and claims only subject matter disclosed in the prior application whose particulars are set out above and the inventor(s) in this application are
☐ the same
☐ less than those named in the prior application and it is requested that the following inventor(s) identified for the prior application be deleted:

(Type name(s) of inventor(s) to be deleted)

- (b) ☒ This application discloses and claims additional disclosure by amendment and a new declaration or oath is being filed. With respect to the prior application the inventor(s) in this application are
☒ the same
☐ the following additional inventor(s) have been added

(Type name(s) of inventor(s) to be added)

- (c) ☐ The inventorship for all the claims in this application are
☐ the same
☐ not the same. An explanation, including the ownership of the various claims at the time the last claimed invention was made
☐ is submitted
☐ will be submitted

21. Abandonment of Prior Application (if applicable)

- ☐ Please abandon the prior application at a time while the prior application is pending or when the petition for extension of time or to revive in that application is granted and when this application is granted a filing date so as to make this application copending with said prior application.

NOTE: According to the Notice of May 13, 1983 (103 TMOG 6-7) the filing of a continuation or continuation-in-part application is a proper response with respect to a petition for extension of time or a petition to revive and should include the express abandonment of the prior application conditioned upon the granting of the petition and the granting of a filing date to the continuing application.

22. Petition for Suspension of Prosecution for the Time Necessary to File an Amendment

WARNING: *"The claims of a new application may be finally rejected in the first Office Action in those situations where (A) the new application is a continuing application of, or a substitute for, an earlier application, and (B) all the claims of the new application (1) are drawn to the same invention claimed in the earlier application, and (2) would have been properly finally rejected on the grounds of art of record in the next Office Action if they had been entered in the earlier application." MPEP, § 706.07(b) 7th ed.*

NOTE: *Where it is possible that the claims on file will give rise to a first action final for this continuation application and for some reason an amendment cannot be filed promptly (e.g., experimental data is being gathered) it may be desirable to file a petition for suspension of prosecution for the time necessary.*

(check the next item, if applicable)

____ There is provided herewith a Petition to Suspend Prosecution for the Time Necessary to File An Amendment (New Application Filed Concurrently)

23. SMALL ENTITY (35 CFR § 1.28(a))

____ Applicant has established small entity status by the filing of a statement in parent application Serial number on ____.

____ A copy of the Statement previously filed is included.

WARNING: *See 37 CFR § 1.28(a).*

WARNING: *"A Small entity status must not be established when the person or persons signing the...statement can unequivocally make the required self-certification." M.P.E.P. § 509.03, 7th ed. (Emphasis added)*

24 NOTIFICATION IN PARENT APPLICATION OF THIS FILING

____ A notification of the filing of this *(check one of the following)*

- ____ continuation
- ____ continuation-in-part
- ____ divisional

is being filed in the parent application, from which this application claims priority under 35 USC § 120.

Attorney's Docket No. 30874 - 1001**PATENT**

☒ Applicant Arvind A. Raichur ☐ Patentee _____
☐ Application No. _____ ☐ Patent No. _____
☒ Filed on August 16, 1999 ☐ Issued on _____
 Title: DYNAMIC INDEX AND SEARCH ENGINE SERVER

**VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR 1.9(f) and 1.27(b))—INDEPENDENT INVENTOR**

As a below named inventor, I hereby declare that I qualify as an independent inventor, as defined in 37 CFR 1.9(c), for purposes of paying reduced fees to the United States Patent and Trademark Office under Sections 41(a) and (b) of Title 35, United States Code, to the Patent and Trademark Office, with regard to the invention described in

- ☒ the specification filed herewith, with title as listed above.
☐ the application identified above.
☐ the patent identified above.

I have not assigned, granted, conveyed or licensed, and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 CFR 1.9(c), if that person had made the invention, or to any concern that would not qualify as a small business concern under 37 CFR 1.9(d), or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

- ☒ No such person, concern, or organization exists.
☐ Each such person, concern or organization is listed below. *

*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

FULL NAME _____

ADDRESS _____

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

FULL NAME _____

ADDRESS _____

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

FULL NAME _____

ADDRESS _____

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

00941031-081500

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Arvind A. Raichur

Name of inventor

Arvind A. Raichur

Signature of Inventor

Date 8-13-99

Name of inventor

Signature of Inventor

Date _____

Name of inventor

Signature of Inventor

Date _____

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Becky D. Raichur
Name of inventor

Becky D Raichur
Signature of Inventor

Date 8/13/99

Name of inventor

Signature of Inventor

Date _____

Name of inventor

Signature of Inventor

Date _____

PATENT APPLICATION

DYNAMIC INDEX AND SEARCH ENGINE SERVER

5

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims the benefit of the filing of U.S. Provisional Patent Application Serial No. 60/149,322, entitled *Dynamic Index And Search Engine Server*, filed on August 16, 1999, and the specification thereof is incorporated herein by reference.

10

BACKGROUND OF THE INVENTION

Field of the Invention (Technical Field):

The present invention relates to Internet search indexes and engines.

15

Background Art:

There are millions of World Wide Web ("web") sites on the Internet today, and so it is becoming increasingly difficult to index the available information quickly so that an individual can easily find the current and complete information (web sites) in which they have interest. Many search engines and search indexes on the web (hereafter web indexes) are simply too large to be useful. Sifting through the thousands of web sites that come from a single search or under a single topic (in an index) is often cumbersome and unfruitful.

20

The problem is two-fold. First, search indexes are very broad. Most people are not interested in every topic on the web; instead they are only interested in a small portion of the many topics that exist.

25

Web users would like to have a web index that only encompasses their topics or subtopics of interest. But creating a customized web index is very time consuming and can be very expensive. Therefore, most people wade through many, many other topics to get to the few topics in which they have interest.

The second problem is with search engines on the web. The web is typically searched by keyword searches of the entire sampling of the web that has been indexed by any given search engine. These searches usually bring up a very large number of sites that have nothing to do with what the user intends to find. For example, someone searching for the poems of Robert Frost may simply type in the poet's name. The result, however, is often unproductive because most search engines can only search for the exact word or words and cannot put the word into context. Therefore the search results for "frost" may include the word "frost" in the wrong context such as in gardening tips. Another example is that a search for web sites about basketball courts may result in the word "court" being taken out of context and the searcher gets not only basketball courts (and other types of sports courts), but also get the supreme court, the court of appeals, etc.

The present invention provides a solution to the problems noted above by permitting individuals to create and organize search indexes specific to their needs.

SUMMARY OF THE INVENTION (DISCLOSURE OF THE INVENTION)

The present invention comprises an apparatus for, computers software for, and method of providing personalized search capabilities of hypertext transmission protocol pages comprising: providing an index server maintaining an index to hypertext transmission protocol pages and employing a hierarchical plurality of topic categories; permitting a user to specify any subset of the plurality of topic categories; and adding to a hypertext transmission protocol page controlled by the user link information permitting execution of searches of the index server in any category of the subset but only of categories in the subset. In the preferred embodiment, the user is permitted to propose addition of a hypertext transmission protocol page to the index server in conjunction with one or more categories of the subset, which causes automatic addition of the proposed page to the index server wherein the user can search the proposed page via the link information and wherein initially other users will not search the proposed page even if searching the proposed one or more categories. This preferably involves first verifying that a uniform resource locator address for the proposed page is valid and that the proposed page is not already indexed under the proposed one or more categories, as well as subsequently allowing other

users to search the proposed page when searching one or more of the proposed one or more categories once suitable checks have been performed. The user can rename one or more categories of the subset as it will appear on the hypertext transmission protocol page controlled by the user, can rearrange hierarchicalization of one or more categories of the subset as it will appear on the hypertext transmission protocol page controlled by the user, and can within a branch of a hierarchy of categories either include or exclude subcategories in the branch, or both. The subset selection can be reexecuted by the user at any time, whereby the link information is dynamically updated to correspond to a new subset.

Other objects, advantages and novel features, and further scope of applicability of the present invention will be set forth in part in the detailed description to follow, taken in conjunction with the accompanying drawings, and in part will become apparent to those skilled in the art upon examination of the following, or may be learned by practice of the invention. The objects and advantages of the invention may be realized and attained by means of the instrumentalities and combinations particularly pointed out in the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings, which are incorporated into and form a part of the specification, illustrate several embodiments of the present invention and, together with the description, serve to explain the principles of the invention. The drawings are only for the purpose of illustrating a preferred embodiment of the invention and are not to be construed as limiting the invention. In the drawings:

FIG. 1 is a general block diagram of the preferred method and apparatus of the invention.

FIG. 2 is a block diagram of the preferred method and apparatus of the customization of web indexes.

FIG. 3 is a block diagram of the preferred method and apparatus of the system to add and filter links.

FIG. 4 is a block diagram of a general web index.

FIG. 5 is a more specific block diagram of the preferred method and apparatus of viewing a general web index.

FIG. 6 is a block diagram of an example of changing the topical hierarchy.

FIG. 7 is a block diagram of the preferred method and apparatus for excluding and setting up
5 topics to customize.

FIG. 8 is a block diagram illustrating the results of the operation of FIG. 7.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

(BEST MODES FOR CARRYING OUT THE INVENTION)

10 The present invention is of a server method and apparatus to allow anyone to put a web index on their web site without having to update, store, check or catalogue any of the link information themselves, yet still allowing them to add web sites to the index. The web site owner can customize several aspects of the look and feel of the web index, then choose a subset of the topics available or choose all topics.

15 Take as an example a young girl maintaining a personal web site. The present invention allows her or her parents to set up a customized index on her web site. She might choose to have her topics be:

- Barbie® and Friends
- Toys
- 20 • Games

With the present invention, when she browses using her web site she does not have to wade through other topics to get to her three topics of choice. Furthermore, because the present invention will exclude all other topics from her customized web index, a search of her index will provide her a more useable set of results – only on her topics. She can search for the words “Barbie” or “Ken,” and because the search
25 would only be on the web sites included in her particular topics, she would get very meaningful results.

The web site owner can also arrange the topics in a personalized hierarchy or keep the default hierarchy. For example, if someone included a Sports topic on their web index, they could arrange the

links within Sports and even change the name of the topics. As just one example, they could take a sports topic with subtopics of Baseball, Basketball, Cheerleading, Cricket, Curling, Field Hockey, Football, Hockey, Lacrosse and Polo as follows:

- Sports

- Baseball
- Basketball
- Cheerleading
- Cricket
- Curling
- Field Hockey
- Football
- Hockey
- Lacrosse
- Polo

and rearrange it to make some of the subtopics main links on the resulting customized web index, such as follows:

- Baseball
- Basketball – The Best Sport!!
- Hockey
- Football
- Other Sports
 - Cheerleading
 - Cricket
 - Curling
 - Field Hockey
 - Lacrosse
 - Polo
 - Rugby

This example illustrates that not only can the web site owner change the hierarchy, but also change the names of the subtopics, making a truly unique web index. This is just one example of how the hierarchy and topic names could be changed. The possibilities are, as is readily understood, endless.

In order to obtain a customized web index for their web site, a web site owner would connect to the Dynamic Index and Search Engine Server ("DISE Server") of the invention to set up their custom index. This would preferably include:

- Setting the look and feel of the web index
- Choosing the topics to be included
- Rearranging topics (changing hierarchy)
- Adding new topics
- Renaming existing topics

After the web site owner has customized the DISE Server for their web site, they are provided a unique DISE Server Connector ("DSC") to place on their web site. The DSC is a gateway to the DISE

Server that connects the web site to the DISE Server so that when someone accesses a web page containing the DSC, the DISE Server is accessed and the customized information is included on the web page.

5 A very important part of this invention is that the web index is dynamically included on the web page. Therefore, the DISE Server is able to update, store, check and catalogue the link information and any changes are instantaneously seen on the web indexes. In this way the web site owner does not have to update his links; he does not have to make sure they are still valid. The DISE Server handles all the work for him. However, the web site owner can add links to his web index.

10 Everyone with a DISE Server customized web index on their web site will be able to request to add links to their web index. This request will include information about the link as well as the suggested topic in which to include the link. When the DISE Server receives the request, it puts the request through a series of filters to determine if the link is valid. If a link is deemed valid, it is added to the requester's
15 web page. The link request is then sent through a second filtering process to see if it should be added to the global DISE Server index. If this second filtering process determines that the link should be added to the global index (DISE Server), the link will be added and, therefore, will automatically be added to all web indexes that contain the topic.

20 In this manner the web site owner is spared the expense and time it takes to maintain a web index while still being able to dynamically add links to their web index.

 Furthermore, by allowing all web site owners to add to the global index, each topic will be more complete. The web site owners can update the topics of interest to them, as they use their own
25 customized index, and every other user will benefit by having the global information in each topic updated much faster and more efficiently.

The present invention allows for an unlimited number of new, yet completely distinct, indexes, which can be created by any number of individuals, companies, groups and organizations. In other words, this technology enables any individual, company or organization to put up their own web index – each with its own look, feel, and method of organizing and prioritizing links. Furthermore, when someone does a keyword search on a web site with a DISE Server customized web index, they are only searching the subset of web sites that are included in this particular web index, and not the entire web. This creates much more relevant search results.

It is important to note that this invention works with any search technology available at this time or invented in the future. It is not particularly relevant to the invention how web sites are searched, but rather that only the customized subset is searched.

A generalized networked computer system consistent with the present invention is shown in FIG. 1. Web page servers (22) are attached to the Internet (26). These servers contain web pages that will be linked from a web index as well as web pages that will utilize the DISE Server to have dynamic web indexes. User computer systems (24) capable of executing a Web browser are coupled logically through a network (26), such as the internet, to any number of web page servers (22).

The present invention preferably encompasses any number of logical and physical computer systems (12) with access to one or more individual databases (14), a database management system (14), a system to implement the customization (18), a system to add and filter links (16), and a system to serve the web indexes dynamically (20). The present invention includes a global index of web pages and one or more methods of searching those web pages. The present invention also includes a default topic structure or hierarchy to contain the global index. Each topic will contain one or more subtopics and one or more links to external, relevant web pages (hereafter external links) under that topic.

When an individual or company (web site owner) chooses to use the DISE Server to incorporate a web index on their web site, they must first set up their customization. FIG. 2 is a generalized

flowchart of the process of customizing an individual web index. In the preferred embodiment, the web site owner (27) must set up a unique account in order to store and retrieve the web site owner's web index setup. If he has not yet set up an account, he will need to go through the process to obtain a unique identifier (30). He can then login (32) and customize many aspects of the look and feel (34), including, but not limited to fonts (size, color, link color, visited link color, etc.), number of columns on the home page and on subsequent pages, whether subtopics will appear on the home page, etc. The web site owner can then completely customize the topic, including the hierarchy and the topic names (36).

FIGS. 4-7 illustrate the customization of a web index. FIG. 4 is a general block diagram of a possible web index. There is a main page or home page (74) with link to topics (76, 78, 80, 82, 84, 86, 88 and 90). These subtopics in turn have their own subtopics. One such set of sub-subtopics is shown in FIG. 4 (92, 94, 96, 98, 100).

FIG. 5 shows an example of how the web site owner might browse through the topics. In the preferred embodiment the web site owner is able to customize the topics by manipulating folders, as on computer, that represent the topics and subtopics. In this example the sports topic (106) is clicked on to reveal its subtopics (110). Under the sports topic there are many other subtopics including basketball (116). Under Basketball there are several subtopics, including NBA (118). When NBA is clicked on, it is seen that there are also subtopics under NBA (120).

To customize his web index, the web site owner will be able to move any subtopic to a different level or under a different topic. FIG. 6 shows how a subtopic might be clicked and dragged to a new topic. This is very much the same way file and folders are typically moved around on computers today. Specifically, in this example the "Chicago Bulls" subtopic (126) is moved above its current parent topic of basketball directly into the Sports topic (128), so that the topic "Chicago Bulls" is now a subtopic of Sports (130).

To specify topics that web user does not want included, he can simply mark them to be taken off. FIG. 7 illustrates this feature of the invention. The subtopics that are not to be included are simply "turned off" (78, 80, 82, 84, 86, 88, 100). FIG. 8 shows how this appears to the user in the preferred embodiment. The topics that turned off are "ghosted." In other words, the folder representing those topics is changed to a different, much lighter color (135). To further show the customization of the topical hierarchy, FIG. 8 shows how the "Baseball" subtopic might be moved from "Sports" to be a top-level topic (135, 140). FIG. 8 then shows how the hierarchy might look to the user (150). In this example, the main topics are Baseball (92), Sports (90), and Business (76). Other customization of the topics can also be performed, including changing the name of any topic and creating new topics.

In the preferred embodiment, the external links that fall under any topic will stay under that topic at all times, whether the topic is moved or renamed, although provision for the external links to be moved under different topics certainly falls within the scope of the invention.

After the web site owner has customized the topics, his preferences are stored. In the preferred embodiment, the preferences are stored in a database, although any reasonable storage method would fall within the scope of the invention.

The present invention then generates the unique DISE server connector ("DSC") for the web site owner (38). The DSC is source code that is placed on the web site (40) to add the dynamic index to the site. This DSC source code could be implemented in HTML, XML, SGML, Java, ASP, or any other feasible source code options for web sites. The preferred embodiment has many types of DSC source code options to accommodate the many web site hosting environments available now or in the future.

Individuals and companies host their web sites on one or more web servers. These web servers store the individual web pages that make up the web sites along with any number of programs, database, etc., which encompass the web site. Since web servers vary so widely, and the technology is constantly changing, it is difficult to choose one particular implementation. The key to the DSC is that it

will connect to the present invention over the Internet and dynamically include language that represents the dynamic index.

In the preferred embodiment, when the index is placed on the web page some other information and features appear on the page as well (herein called other information). This other information preferably includes:

1. Banner advertisements or other advertisements;
2. A way to add new links;
3. A copyright statement;
4. An ownership statement;
5. Links to a web page containing information about the present invention;
6. A search box enabling a search of the customized index or the entire web; and
7. A way to reconfigure the web index.

In the preferred embodiment, the banner advertisements are optional, but there are preferably other mandatory information that must be included with the web index.

Once the web site owner places the DSC on his web page, the code will be activated when any web browser views the web page. When a web user (24) views the web page, the unique customized web index and other information for that web page will appear on the web page dynamically (41).

At any time the web site owner can reconfigure his settings of the present invention, allowing him to change his customized web index. In the preferred embodiment, a new DSC is not be required for every reconfiguration, although requiring that the DSC be changed after each reconfiguration is within the scope of the present invention.

In the preferred embodiment, anyone who uses any of the customized web indexes can suggest links to be added to the web index. These suggestions include the suggested link, the suggested title of

the link the suggested link description and the topic in which to include the link. FIG. 3 shows a generalized block diagram of user-added links to the system. Before one of the "at-large" link requests (42) are incorporated into the global index, the link suggestions are preferably filtered through two filtering processes: 1) a filtering process to determine whether the link is valid (46); and 2) a filtering process to determine whether the link should be added to the global index (54).

The first filtering process, to test whether the link is valid (46), preferably includes, but is not necessarily limited to:

1. Checking if the link is a valid web page;
2. Making sure that the same link has not already been added to the specified topic; and
3. Checking that the title of the link or words used to describe the link meet certain criteria (e.g., no profanity, etc.)

The second filtering process to determine whether the link should be added to the global index (54) preferably includes, but is not necessarily limited to:

1. Checking to make sure that the suggested link is appropriate for the topic;
2. Checking to make sure that the proposed description and title of the link are appropriate; and
3. Checking to make sure that the proposed description and title of the link are descriptive of the contents of the link.

However, the web site owner who has included a customized web index on his web site will have more choices. He can add a link to his index dynamically. If the web site owner suggests a link (44), his request is only put through the first filtering process to test that the link is valid (46) before it is included on his web site. If the link is deemed valid then the link is added to the requester's web index (52). In the preferred embodiment the filtering process is done electronically so that the link will be added to the requesting web site owner's web site immediately.

Furthermore, every link suggestion posted by a web site owner is preferably also being sent through the second filtering process to determine whether the link should be added to the global index (54). In this manner, as each individual updates his or her web index, the global web index is updated (56) as well allowing for a much more complete index than could otherwise be accomplished.

5

It is important to note that under the present invention it is also possible for the web site owner to exclude individual links from his web page. This feature is not included in the preferred embodiment because of the complexity of keeping track of whether one link should be included in any number of web sites.

10

Although the invention has been described in detail with particular reference to these preferred embodiments, other embodiments can achieve the same results. Variations and modifications of the present invention will be obvious to those skilled in the art and it is intended to cover in the appended claims all such modifications and equivalents. The entire disclosures of all references, applications, patents, and publications cited above are hereby incorporated by reference.

15

CLAIMS

What is claimed is:

5 1. A method of providing personalized search capabilities of hypertext transmission protocol pages, the method comprising the steps of:

 a) providing an index server maintaining an index to hypertext transmission protocol pages and employing a hierarchical plurality of topic categories;

 b) permitting a user to specify any subset of the plurality of topic categories;

10 and

 c) adding to a hypertext transmission protocol page controlled by the user link information permitting execution of searches of the index server in any category of the subset but only of categories in the subset.

15 2. The method of claim 1 additionally comprising the steps of permitting the user to propose addition of a hypertext transmission protocol page to the index server in conjunction with one or more categories of the subset and automatically adding the proposed page to the index server wherein the user can search the proposed page via the link information and wherein initially other users will not search the proposed page even if searching the proposed one or more categories.

20 3. The method of claim 2 wherein the automatically adding step comprises the steps of verifying that a uniform resource locator address for the proposed page is valid and that the proposed page is not already indexed under the proposed one or more categories.

25 4. The method of claim 2 additionally comprising the step of subsequently allowing other users to search the proposed page when searching one or more of the proposed one or more categories.

5. The method of claim 1 additionally comprising the step of allowing the user to rename one or more categories of the subset as it will appear on the hypertext transmission protocol page controlled by the user.

5 6. The method of claim 1 additionally comprising the step of allowing the user to rearrange hierarchicalization of one or more categories of the subset as it will appear on the hypertext transmission protocol page controlled by the user.

10 7. The method of claim 1 wherein the permitting step comprises permitting the user within a branch of a hierarchy of categories to either include or exclude subcategories in the branch, or both.

8. The method of claim 1 wherein steps b) can be reexecuted by the user at any time, whereby the link information is dynamically updated to correspond to a new subset.

15 9. An apparatus providing personalized search capabilities of hypertext transmission protocol pages, said apparatus comprising:

an index server maintaining an index to hypertext transmission protocol pages and employing a hierarchical plurality of topic categories;

a link permitting a user to specify any subset of said plurality of topic categories;

20 and

a link adding to a hypertext transmission protocol page controlled by the user link information permitting execution of searches of said index server in any category of said subset but only of categories in said subset.

10. The apparatus of claim 9 additionally comprising a link permitting the user to propose addition of a hypertext transmission protocol page to said index server in conjunction with one or more categories of said subset and automatically adding said proposed page to said index server wherein the user can search said proposed page via said link information and wherein initially other users will not search said proposed page even if searching said proposed one or more categories.

11. The apparatus of claim 10 wherein said proposed addition link comprises means for invoking verification that a uniform resource locator address for said proposed page is valid and that said proposed page is not already indexed under said proposed one or more categories.

12. The apparatus of claim 10 additionally comprising means for subsequently allowing other users to search the proposed page when searching one or more of the proposed one or more categories.

13. The apparatus of claim 9 additionally comprising a link allowing the user to rename one or more categories of said subset as it will appear on said hypertext transmission protocol page controlled by the user.

14. The apparatus of claim 9 additionally comprising a link allowing the user to rearrange hierarchicalization of one or more categories of said subset as it will appear on said hypertext transmission protocol page controlled by the user.

15. The apparatus of claim 9 wherein said permitting link comprises means for invoking means permitting the user within a branch of a hierarchy of categories to either include or exclude subcategories in said branch, or both.

16. The apparatus of claim 9 wherein said permitting link can be reexecuted by the user at any time, whereby said link information is dynamically updated to correspond to a new subset.

17. Computer software providing personalized search capabilities of hypertext transmission protocol pages, said software comprising:

index server code maintaining an index to hypertext transmission protocol pages

and employing a hierarchical plurality of topic categories;

link code permitting a user to specify any subset of said plurality of topic

categories; and

link code adding to a hypertext transmission protocol page controlled by the user

link information permitting execution of searches via said index server code in any category of said

subset but only of categories in said subset.

18. The software of claim 17 additionally comprising link code permitting the user to propose addition of a hypertext transmission protocol page to said index server code in conjunction with one or more categories of said subset and automatically adding said proposed page to those indexed by said index server code wherein the user can search said proposed page via said link information and wherein initially other users will not search said proposed page even if searching said proposed one or more categories.

19. The software of claim 18 wherein said proposed addition link comprises code for invoking verification that a uniform resource locator address for said proposed page is valid and that said proposed page is not already indexed under said proposed one or more categories.

20. The software of claim 18 additionally comprising code for subsequently allowing other users to search the proposed page when searching one or more of the proposed one or more categories.

21. The software of claim 17 additionally comprising link code allowing the user to rename one or more categories of said subset as it will appear on said hypertext transmission protocol page controlled by the user.

5 22. The software of claim 17 additionally comprising link code allowing the user to rearrange hierarchicalization of one or more categories of said subset as it will appear on said hypertext transmission protocol page controlled by the user.

10 23. The software of claim 17 wherein said permitting link code comprises code for invoking code permitting the user within a branch of a hierarchy of categories to either include or exclude subcategories in said branch, or both.

15 24. The software of claim 17 wherein said permitting code can be reexecuted by the user at any time, whereby said link information is dynamically updated to correspond to a new subset.

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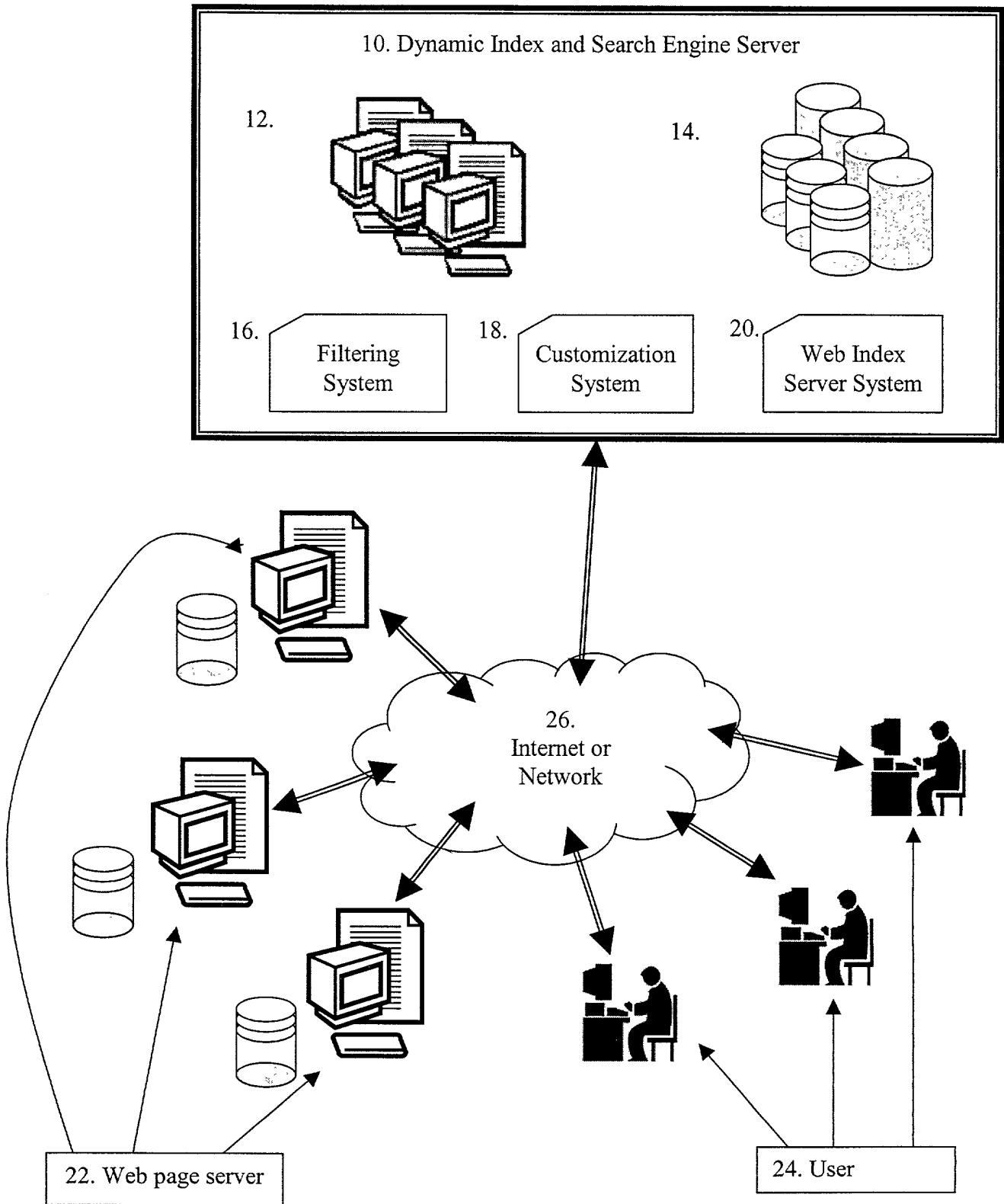


FIG. 1

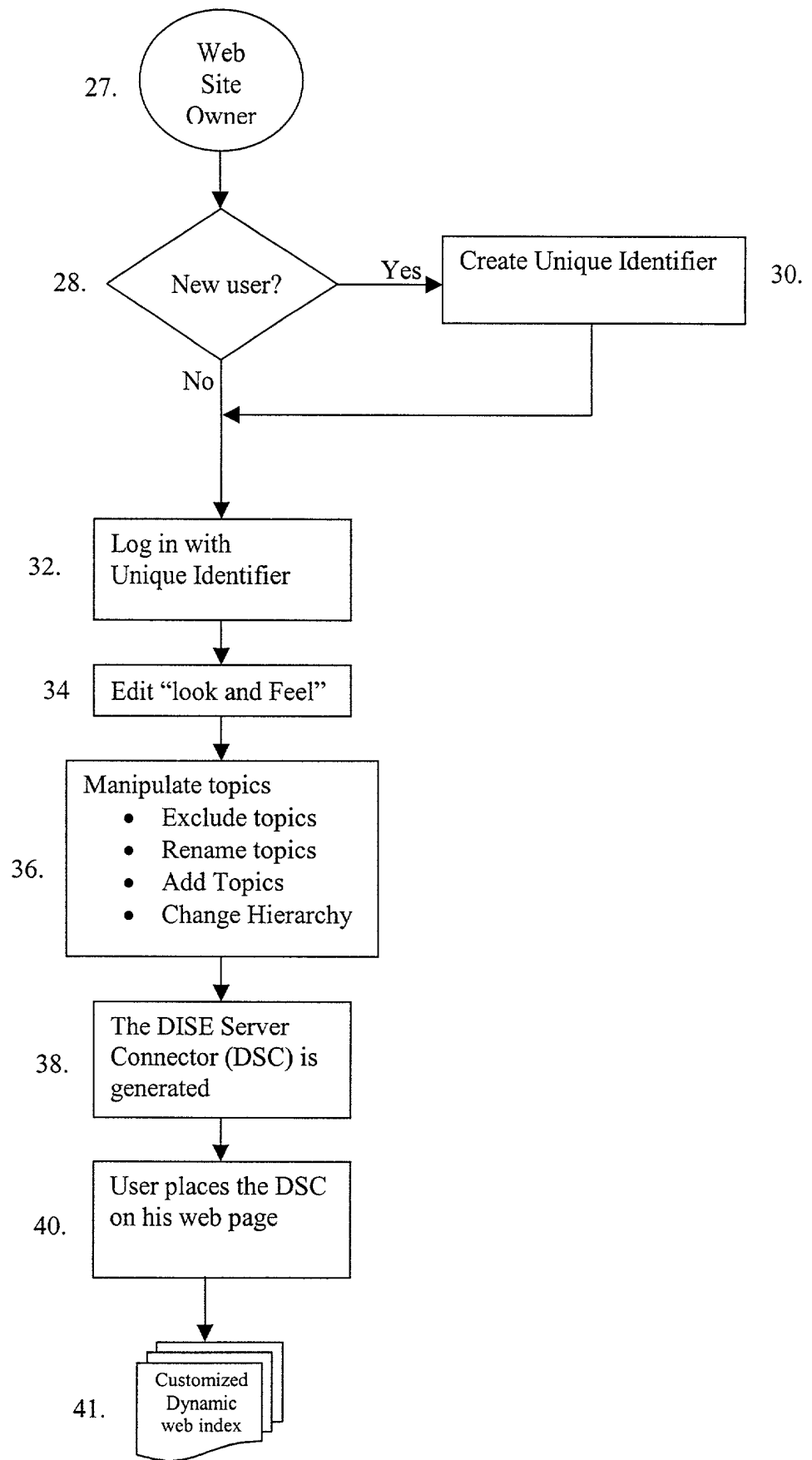


FIG. 2

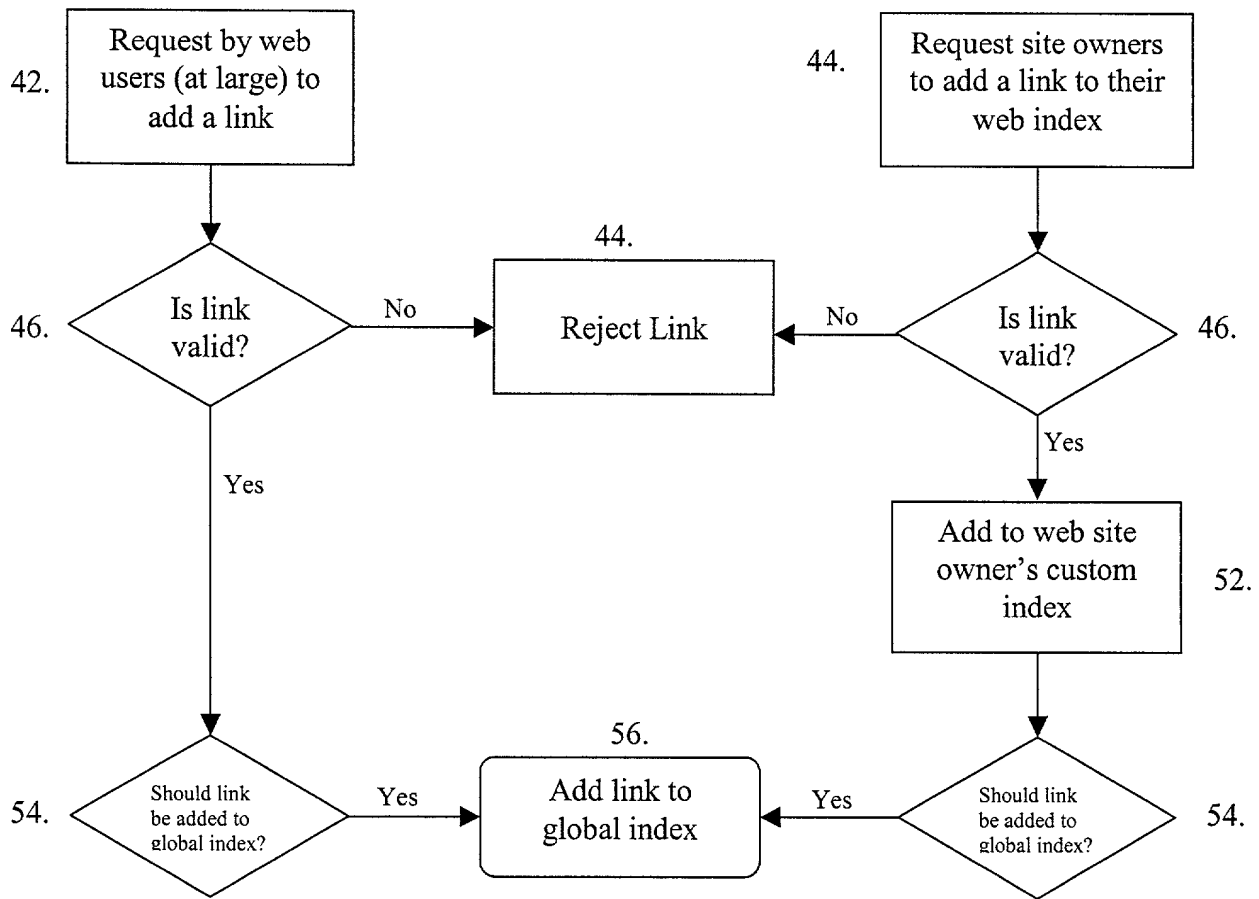


FIG. 3

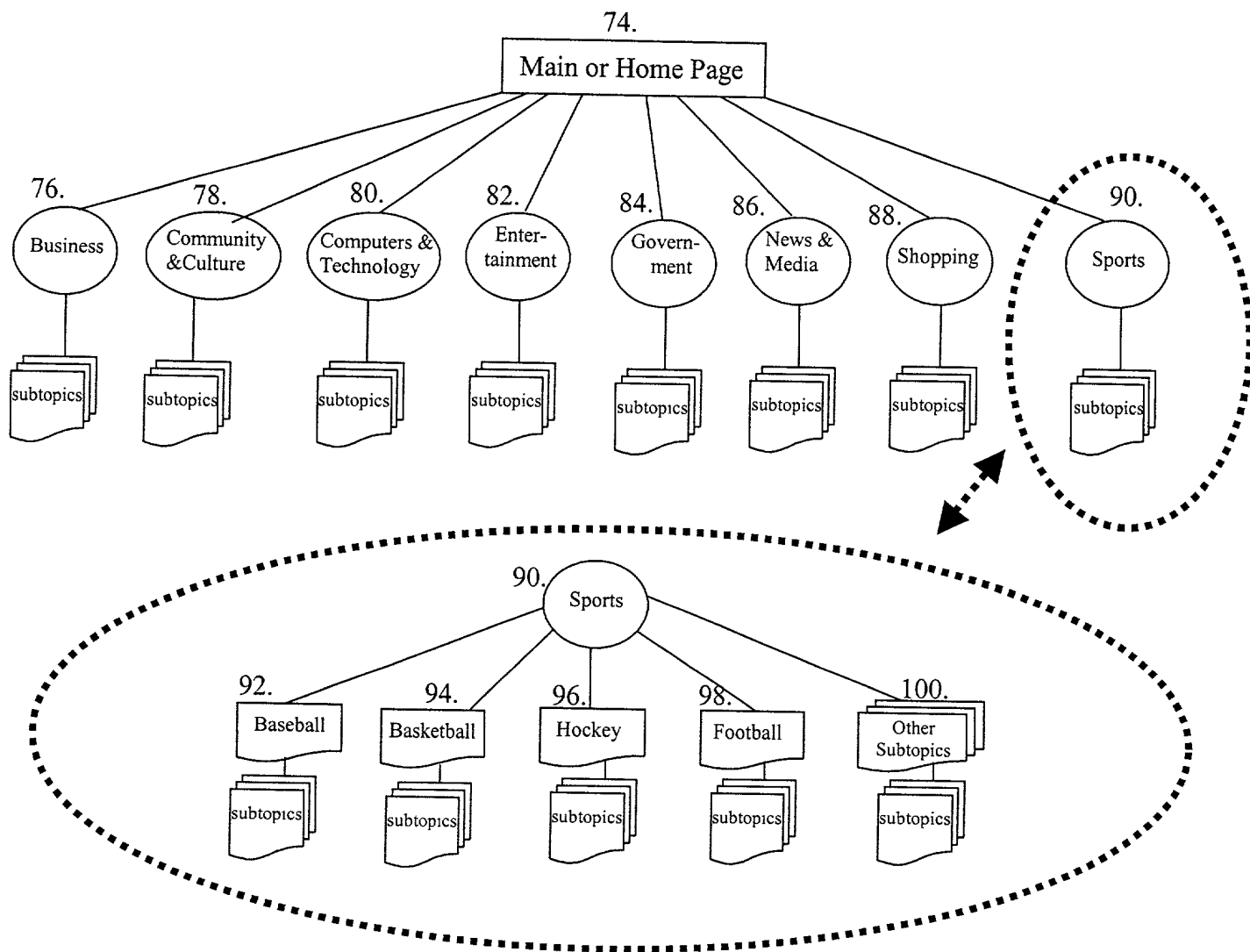
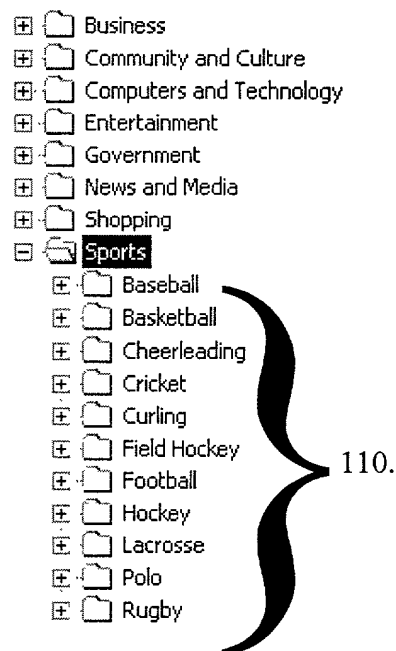


FIG. 4

106.



110.

120.

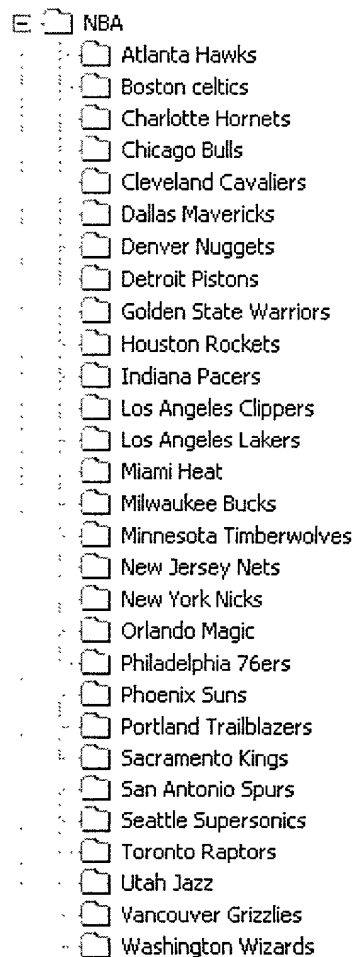
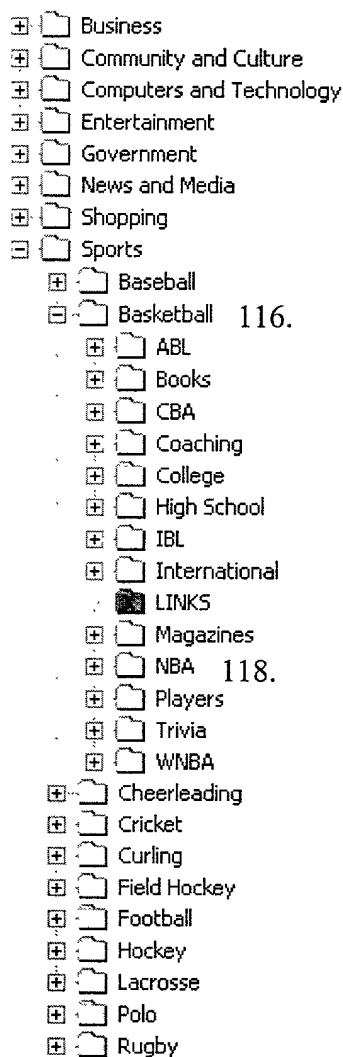


FIG. 5

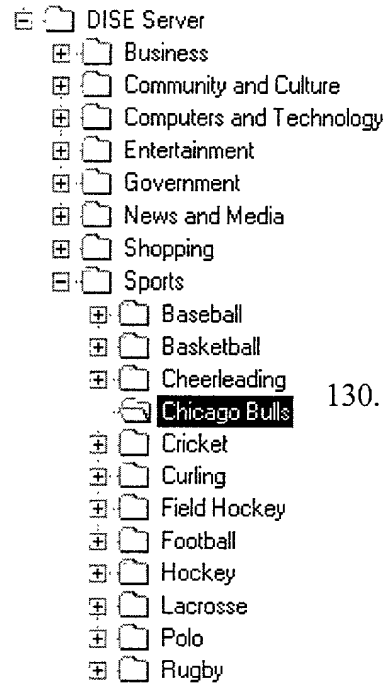
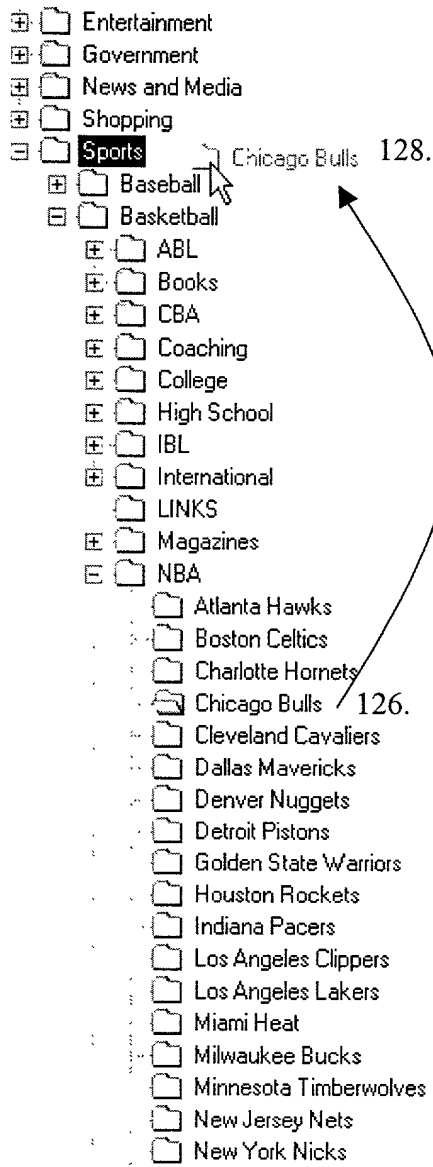
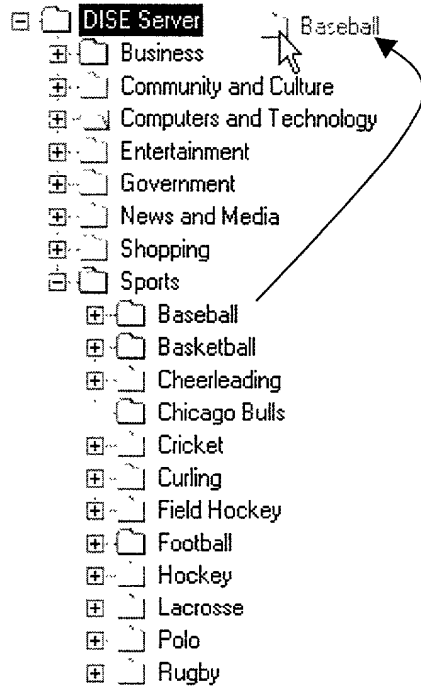
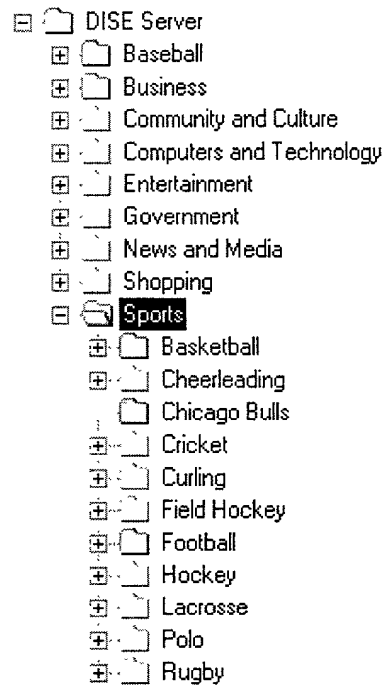


FIG. 6

135.



140.



150.

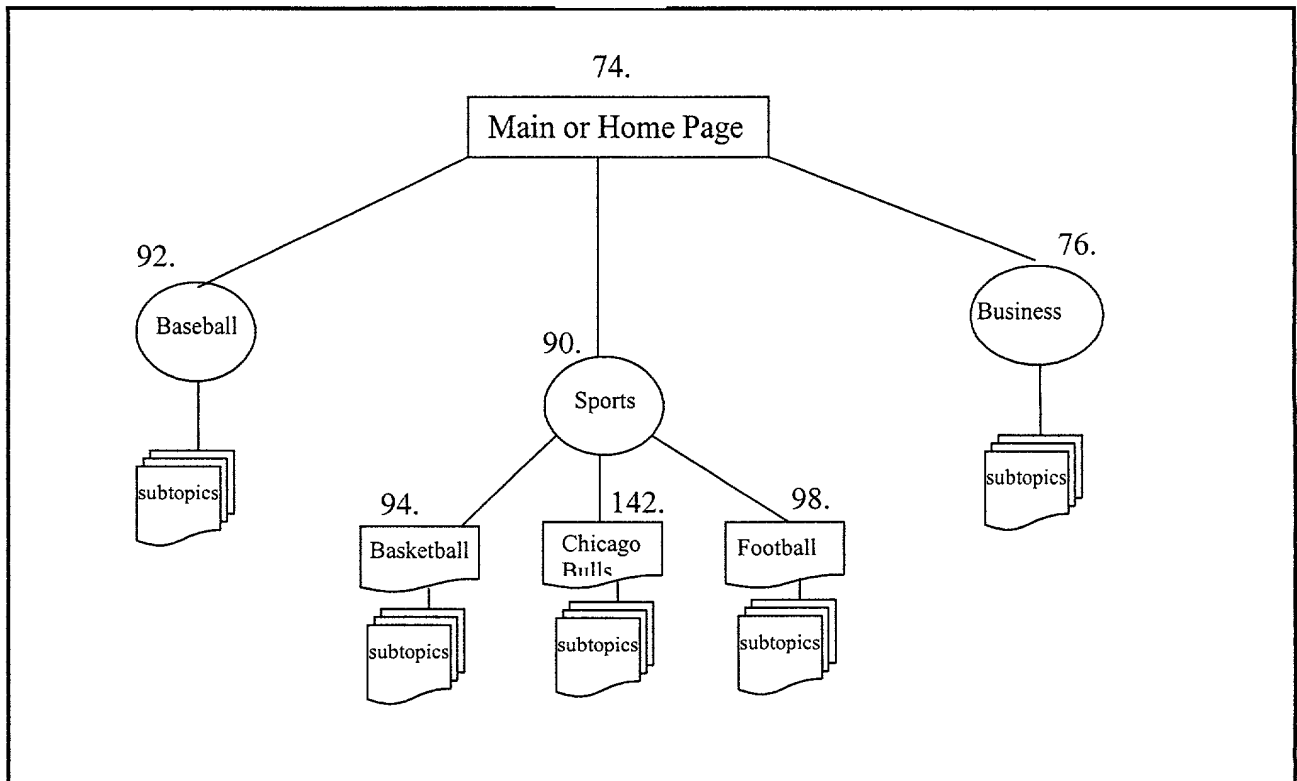


FIG. 8

Practitioner's Docket No. 30874-UT

PATENT**COMBINED DECLARATION AND POWER OF ATTORNEY**(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL, DIVISIONAL,
CONTINUATION, OR C-I-P)

As a below named inventor, I hereby declare that:

TYPE OF DECLARATION

This declaration is of the following type:

(check one applicable item below)

☒ original.☐ design.

NOTE: With the exception of a supplemental oath or declaration submitted in a reissue, a supplemental oath or declaration is not treated as an amendment under 37 CFR 1.312 (Amendments after allowance). M.P.E.P. § 714.16, 7th Edition.

☐ supplemental.

NOTE: If the declaration is for an International Application being filed as a divisional, continuation or continuation-in-part application, do not check next item; check appropriate one of last three items.

☐ national stage of PCT.

NOTE: If one of the following 3 items apply, then complete and also attach ADDED PAGES FOR DIVISIONAL, CONTINUATION OR C-I-P.

NOTE: See 37 C.F.R. § 1.63(d) (continued prosecution application) for use of a prior nonprovisional application declaration in the continuation or divisional application being filed on behalf of the same or fewer of the inventors named in the prior application.

☐ divisional.☐ continuation.

NOTE: Where an application discloses and claims subject matter not disclosed in the prior application, or a continuation or divisional application names an inventor not named in the prior application, a continuation-in-part application must be filed under 37 C.F.R. § 1.53(b) (application filing requirements — nonprovisional application).

☐ continuation-in-part (C-I-P).**INVENTORSHIP IDENTIFICATION**

WARNING: If the inventors are each not the inventors of all the claims, an explanation of the facts, including the ownership of all the claims at the time the last claimed invention was made, should be submitted.

My residence, post office address and citizenship are as stated below, next to my name. I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter that is claimed, and for which a patent is sought on the invention entitled:

TITLE OF INVENTION

DYNAMIC INDEX AND SEARCH ENGINE SERVER

SPECIFICATION IDENTIFICATION

the specification of which:

(complete (a), (b), or (c))

(a) ☒ is attached hereto.

NOTE: "The following combinations of information supplied in an oath or declaration filed on the application filing date with a specification are acceptable as minimums for identifying a specification and compliance with any one of the items below will be accepted as complying with the identification requirement of 37 CFR 1.63:

"(1) name of inventor(s), and reference to an attached specification which is both attached to the oath or declaration at the time of execution and submitted with the oath or declaration on filing;

"(2) name of inventor(s), and attorney docket number which was on the specification as filed;
or

"(3) name of inventor(s), and title which was on the specification as filed."

Notice of July 13, 1995 (1177 O.G. 60).

(b) ☐ was filed on _____, as ☐ Serial No. 0 / _____
or ☐ _____
and was amended on _____ (if applicable).

NOTE: Amendments filed after the original papers are deposited with the PTO that contain new matter are not accorded a filing date by being referred to in the declaration. Accordingly, the amendments involved are those filed with the application papers or, in the case of a supplemental declaration, are those amendments claiming matter not encompassed in the original statement of invention or claims. See 37 C.F.R. § 1.67.

NOTE: "The following combinations of information supplied in an oath or declaration filed after the filing date are acceptable as minimums for identifying a specification and compliance with any one of the items below will be accepted as complying with the identification requirement of 37 CFR 1.63:

"(A) application number (consisting of the series code and the serial number, e.g., 08/123,456);

"(B) serial number and filing date;

"(C) attorney docket number which was on the specification as filed;

"(D) title which was on the specification as filed and reference to an attached specification which is both attached to the oath or declaration at the time of execution and submitted with the oath or declaration; or

"(E) title which was on the specification as filed and accompanied by a cover letter accurately identifying the application for which it was intended by either the application number (consisting of the series code and the serial number, e.g., 08/123,456), or serial number and filing date. Absent an, statement(s) to the contrary, it will be presumed that the application filed in the PTO is the application which the inventor(s) executed by signing the oath or declaration."

M.P.E.P. § 601.01(a), 7th Ed.

(c) ☐ was described and claimed in PCT International Application No. _____, filed on _____ and as amended under PCT Article 19 on _____ (if any).

SUPPLEMENTAL DECLARATION (37 C.F.R. § 1.67(b))

(complete the following where a supplemental declaration is being submitted)

- ☐ I hereby declare that the subject matter of the
- ☐ attached amendment
 - ☐ amendment filed on _____

was part of my/our invention and was invented before the filing date of the original application, above-identified, for such invention.

ACKNOWLEDGEMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information, which is material to patentability as defined in 37, Code of Federal Regulations, § 1.56,

(also check the following items, if desired)

- ☒ and which is material to the examination of this application, namely, information where there is a substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent, and
- ☐ in compliance with this duty, there is attached an information disclosure statement, in accordance with 37 C.F.R. § 1.98.

PRIORITY CLAIM (35 U.S.C. §§ 119(a)–(d))

NOTE: "The claim to priority need be in no special form and may be made by the attorney or agent if the foreign application is referred to in the oath or declaration as required by § 1.63. The claim for priority and the certified copy of the foreign application specified in 35 U.S.C. 119(b) must be filed in the case of an interference (§ 1.630), when necessary to overcome the date of a reference relied upon by the examiner, when specifically required by the examiner, and in all other situations, before the patent is granted. If the claim for priority or the certified copy of the foreign application is filed after the date the issue fee is paid, it must be accompanied by a petition requesting entry and by the fee set forth in § 1.17(i). If the certified copy is not in the English language, a translation need not be filed except in the case of interference; or when necessary to overcome the date of a reference relied upon by the examiner; or when specifically required by the examiner, in which event an English language translation must be filed together with a statement that the translation of the certified copy is accurate." 37 C.F.R. § 1.55(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §§ 119(a)–(d) of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

(complete (d) or (e))

- (d) ☒ no such applications have been filed.
- (e) ☐ such applications have been filed as follows.

NOTE: Where item (c) is entered above and the International Application which designated the U.S. itself claimed priority check item (e), enter the details below and make the priority claim.

**PRIOR FOREIGN/PCT APPLICATION(S) FILED WITHIN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION
AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. § 119(a)-(d)**

COUNTRY (OR INDICATE IF PCT)	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 37 USC 119
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>

CLAIM FOR BENEFIT OF PRIOR U.S. PROVISIONAL APPLICATION(S)
(34 U.S.C. § 119(e))

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below:

PROVISIONAL APPLICATION NUMBER

FILING DATE

60 / 149,322

August 16, 1999

CLAIM FOR BENEFIT OF EARLIER US/PCT APPLICATION(S)
UNDER 35 U.S.C. § 120

- ☐ The claim for the benefit of any such applications are set forth in the attached ADDED PAGES TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR DIVISIONAL, CONTINUATION OR CONTINUATION-IN-PART (C-I-P) APPLICATION.

**ALL FOREIGN APPLICATION(S), IF ANY, FILED MORE THAN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION**

NOTE: If the application filed more than 12 months from the filing date of this application is a PCT filing forming the basis for this application entering the United States as (1) the national stage, or (2) a continuation, divisional, or continuation-in-part, then also complete ADDED PAGES TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR DIVISIONAL, CONTINUATION OR C-I-P APPLICATION for benefit of the prior U.S. or PCT application(s) under 35 U.S.C. § 120.

POWER OF ATTORNEY

I hereby appoint the following practitioner(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

(list name and registration number)

JEFFREY D. MYERS, Reg. No. 35,964

(check the following item, if applicable)

- ☒ I hereby appoint the practitioner(s) associated with the Customer Number provided below to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.
- ☐ Attached, as part of this declaration and power of attorney, is the authorization of the above-named practitioner(s) to accept and follow instructions from my representative(s).

NOTE: "Special care should be taken in continuation or divisional applications to ensure that any change of correspondence address in a prior application is reflected in the continuation or divisional application. For example, where a copy of the oath or declaration from the prior application is submitted for a continuation or divisional application filed under 37 CFR 1.53(b) and the copy of the oath or declaration from the prior application designates an old correspondence address, the Office may not recognize, in the continuation or divisional application, the change of correspondence address made during the prosecution of the prior application. Applicant is required to identify the change of correspondence address in the continuation or divisional application to ensure that communications from the Office are mailed to the current correspondence address. 37 CFR 1.63(d)(4)." § 601.03, M.P.E.P., 7th Edition.

SEND CORRESPONDENCE TO

JEFFREY D. MYERS

☐ Address

DIRECT TELEPHONE CALLS TO:
(Name and telephone number)

Direct line-(505) 998-1502

Switchboard-(505) 998-1500

☒ Customer Number 005179

(complete the following if applicable)

Since this filing is a ☐ continuation ☐ divisional there is attached hereto a Change of Correspondence Address so that there will be no question as to where the PTO should direct all correspondence.

(Declaration and Power of Attorney [1-1]—page 5 of 7)

00641031 031600
00641031 031600

[illegible]

SIGNATURE(S)

NOTE: *Inventors may execute separate declarations/oaths provided each declaration/oath sets forth all the inventors. Section 1.63(a)(3) requires that a declaration/oath, inter alia, identify each inventor and prohibits the execution of separate declarations/oaths which each sets forth only the name of the executing inventor. 62 Fed. Reg. 53,131, 53,142, October 10, 1997,*

ARVIND	A.	RAICHUR
(GIVEN NAME)	(MIDDLE INITIAL OR NAME)	FAMILY (OR LAST NAME)

Albuquerque, New Mexico 87112

<u>BECKY</u> (GIVEN NAME)	<u>D.</u> (MIDDLE INITIAL OR NAME)	<u>RAICHUR</u> (FAMILY (OR LAST NAME))
------------------------------	---------------------------------------	-------------------------------------------

Albuquerque, New Mexico 87112

 (GIVEN NAME) (MIDDLE INITIAL OR NAME) FAMILY (OR LAST NAME)

Post Office Address _____

(check proper box(es) for any of the following added page(s)
that form a part of this declaration)

- ☐ **Signature** for fourth and subsequent joint inventors. Number of pages added _____

* * *

- ☐ **Signature** by administrator(trix), executor(trix) or legal representative for deceased or incapacitated inventor. Number of pages added _____

* * *

- ☐ **Signature** for inventor who refuses to sign or cannot be reached by person authorized under 37 CFR 1.47. Number of pages added _____

* * *

- ☐ Added page for **signature** by one joint inventor on behalf of deceased inventor(s) where legal representative cannot be appointed in time. (37 CFR 1.47)

* * *

- ☐ Added pages to combined declaration and power of attorney for divisional, continuation, or continuation-in-part (C-I-P) application.

☐ Number of pages added _____

* * *

- ☐ Authorization of practitioner(s) to accept and follow instructions from representative.

* * *

(if no further pages form a part of this Declaration,
then end this Declaration with this page and check the following item)

☒ This declaration ends with this page.

PATENT APPLICATION

I hereby certify that this paper is being deposited with the United States Postal Service
"Express Mail Post Office to Addressee" service under 37 CFR 1.10 via Label
No. EL548784495US on August 16, 2000, addressed to **Box: Patent Applications**,
Commissioner for Patents, Washington, D.C. 20231.


Diane S. Nelson, Paralegal

August 16, 2000
Date Signed

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Arvind A. Raichur and Becky D. Raichur :
Serial No.: UNKNOWN : Attorney Docket No.: 30874-UT
Filed: August 16, 2000 : Anticipated Group Art Unit: UNKNOWN
For: DYNAMIC INDEX AND SEARCH ENGINE :
SERVER :

ASSOCIATE POWER OF ATTORNEY

Box: Patent Applications
Commissioner for Patents
Washington, D.C. 20231

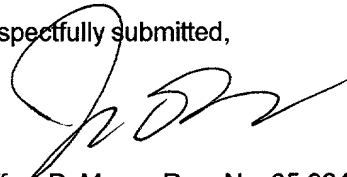
Dear Sir:

Jeffrey D. Myers, a principal attorney in the above-identified application for Letters Patent, hereby
appoints:

Deborah A. Peacock, Reg. No. 31,649
Paul Adams, Reg. No. 21,096
Rod D. Baker, Reg. No. 35,434
Brian J. Pangrle, Reg. No. 42,973
Andrea L. Mays, Reg. No. 43,721; and
Stephen A. Slusher, Reg. No. 43,924

as associate attorneys with full power.

Respectfully submitted,



Jeffrey D. Myers, Reg. No. 35,964
Direct line: (505) 998-1502

Date: August 16, 2000

Attorney for Applicant(s)
PEACOCK, MYERS & ADAMS, P.C.
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